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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/426,380	10/25/99	GATLEY W	FASV-131-C1

MM22/0216

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EXAMINER	
PEREZ, G	
ART UNIT	**PAPER NUMBER**
2834	

DATE MAILED:
02/16/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)

1- F

Office Action Summary	Application No.	Applicant(s)	
	09/426,380	GATLEY ET AL.	
	Examiner	Art Unit	
	Guillermo Perez	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 October 1999* is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of the CERTIFIED copies of the priority documents have been:

1.☐ received.

2.☐ received in Application No. (Series Code / Serial Number) _____ .

3.☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

14) ☒ Notice of References Cited (PTO-892)
15) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
17) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
18) ☐ Notice of Informal Patent Application (PTO-152)
19) ☐ Other: .

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the vent slots in the radially extended projection of the stator of claim 13 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Specification

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

> (a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.
>
> (b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.
>
> (c) In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because the specification, as originally filed, does not provide support for the invention as now claimed. The

specification does not describe the vent slots in the radially extended projection of the stator of claim 13.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 13 recites that the radially extended projection of the stator has vent slots. Neither the specification nor the drawings show the vent slots in the stator. The specification does show the use of vent slots in the housing embodiments. Is not clearly stated whether the slots are in the stator core laminations or only in the housing embodiment.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "the aperture" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 19 to 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Bright et al. (U.S. Pat. No. 3, 969, 043).

Referring to claim 19, Bright et al. disclose a method of enclosing a C-frame motor comprising the steps of: providing a motor assembly (figure 5) having a stator (174), a rotor (160) and at least one bobbin having electrical conductor windings situated thereon; providing an end plate (18) wherein said end plate is adapted to attach to said stator; providing a motor housing (20) having portions configured to encompass said motor wherein said housing is attached to said motor via attachment to said end plate; and, securing said housing to said end plate.

Referring to claim 20, Bright et al. disclose a step of providing said housing with a radially extended portion (20) adapted to enclose said at least one bobbin.

Referring to claim 21, Bright et al. disclose the steps of providing an impeller (90) and providing a rotor shaft (162) attached to said rotor whereby rotation of said rotor shaft rotates said impeller.

Referring to claim 22, Bright et al. disclose a step of providing an end cap adapted to encompass said impeller such that said impeller can freely rotate within said end cap (figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 to 2, 4 to 8, 10 to 12, 14 to 16, 18 and 24 to 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. in view J. E. Baclawski (U.S. Pat. No. 3, 243, 619).

Bright et al. disclose a C-frame motor comprising: a stator (176) having a plurality of electrically conductive laminations wherein said laminations have portions which define rotor apertures for receiving a rotor and portions which define radially extended projections for receiving a bobbin; at least one bobbin having a plurality of coils comprising at least one wound electrical conductor wherein said at least one bobbin is attached to said stator lamination projections; and, a housing (20) configured to encompass said stator, said rotor and said at least one bobbin wherein said housing is attached to said stator; and that said housing comprises a main housing body and an end cap (18); said end plate configured and adapted to attach to said stator wherein said end plate has apertures (154) for receiving mechanical fasteners; and that said

housing has portions defining at least one attachment (156) in axial relationship with said housing body; and that said housing is attached to said end plate with mechanical fasteners (182); and at least one impeller (90); and that said housing has a first end configured to encompass said at least one impeller such that said impeller can freely rotate within said housing (figure 4); and that said housing has portions defining a bobbin extension extending radially from said housing and sized to encompass said at least one bobbin; and that said housing comprises a main housing and an end housing; and that said main housing has a radially extended projection provided to conform to the shape of said stator, said rotor, and said at least one bobbin; and that said end housing is matingly engaged to a first end of said main housing (figure 9); and that said end housing is a solid enclosure (20); and securing said motor assembly to said housing by placing said motor assembly into said housing from an anterior end of said housing so that said motor assembly is aligned with the aperture defined by a main housing end-cap receiving portion. However, Bright et al. do not disclose a rotor having a plurality of laminations and sized to be received within said rotor apertures of said stator laminations; nor maintaining an air gap of at least 0.010 inches between said housing and said motor assembly.

J. E. Baclawski discloses a rotor (3) having a plurality of laminations (column 3, lines 10 to 13) and sized to be received within said rotor apertures of said stator laminations for the purpose of forming a squirrel cage type rotor.

It would have been obvious at the time the invention was made to modify the C-frame motor of Bright et al. and provide it with a rotor having a plurality of laminations and sized to be received within said rotor apertures of said stator laminations for the purpose of forming a squirrel cage type rotor.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to keep a gap of at least 0.010 inches between the housing and the motor assembly since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller,* 105 USPQ 233.

Claims 3, 9, 13, 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. in view of J. E. Baclawski and further in view of Metheny et al. (U.S. Pat. No. 5,763,969).

Bright et al. and J. E. Baclawski disclose a C-frame motor as described on item 2 above. However, neither Bright et al. nor J. E. Baclawski disclose that the end cap has vent slots, nor that rotating said impeller induces air flow over said motor.

Metheny et al. disclose that the end cap has vent slots (figures 2 and 3), and that rotating said impeller (60) induces air flow over said motor for the purpose of providing improved cooling of power electronic devices contained in the motor.

It would have been obvious at the time the invention was made to modify the C-frame motor of Bright et al. and J. E. Baclawski and provide it with an end cap having

vent slots, in which rotating said impeller induces air flow over said motor for the purpose of improving cooling efficiency in the motor embodiment during operation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5841 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

GP
February 11, 2000